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10/689,483	10/20/2003	Peter J. Dix	17205-17400	7872

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EXAMINER

WALTERS, JOHN DANIEL

ART UNIT PAPER NUMBER

3618

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/689,483

**Applicant(s)**

DIX ET AL.

**Examiner**

John D. Walters

**Art Unit**

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-33 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21-26 is/are rejected.
- 7) ☒ Claim(s) 19,20 and 22-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/20/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

### **DETAILED ACTION**

Claims 1 – 33 have been examined.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: lines 3 and 4 state "...a second movement of the operator in put device being of a magnitude than the magnitude of the first movement.". It appears that a qualifier should be placed between the words "magnitude" and "than" such as "higher" or "lower". For the sake of continuing examination, it has been assumed that the word "higher" should be used.

Claims 24 – 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites the limitation "the first movement" in line 1. There is insufficient antecedent basis for this limitation in the claim. It appears that claim 24 was intended to

be dependant upon claim 23 and, for the sake of continuing examination, is assumed to have that dependency.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, 8 – 12, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hutchison (5,642,653). Hutchison discloses a method and apparatus for providing detents on an electronic control handle comprising:

- a proportional control operator input device (Fig. 1, item 108 & column 2, line 34);
- an electronic controller (Fig. 1, item 110 & column 2, line 35);
- at least one hydraulic valve (Fig. 1, item 112 & column 2, lines 46 and 47);
- whereby a first mode of operation causes an implement to be raised and lowered via the input device (column 3, lines 2 – 5);
- whereby a second mode of operation automatically raises an implement (column 3, lines 9 – 12);

- whereby a change from said first mode to said second mode is based upon an operators positioning of said input device (column 3, lines 20 – 24);
- whereby said change from said first mode to said second mode is based on a period of time in which the input device is in at least one position (column 5, lines 1 – 6);
- whereby said controller is configured to exit said second mode of operation when said implement reaches a predetermined position (column 4, lines 61 – 65);
- whereby said controller is configured to exit said second mode of operation when said operator does not release said input device (column 5, lines 11 – 12).

Claim 21 is rejected under 35 U.S.C. 102(a) as being anticipated by Hou et al. (6,561,076). Hou discloses a differential configuration of remote hydraulic valve flow rates comprising:

- an operator controllable input device configured to generate signals indicating a plurality of rates of movement (Fig. 2, item 34 and 36 & column 7, lines 8 – 30);
- an electronic controller (Fig. 2, item 38);
- at least one hydraulic valve (Fig. 2, item 50);
- whereby said controller has at least a first and second mode of operation which each have differing ramp rates, i.e. flow rates, at which an implement is raised and lowered (column 2, lines 52 – 67 & column 7, lines 8 – 30).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 – 7 and 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison (5,642,653) in view of Arstein et al. (5,685,377). Hutchison discloses a method and apparatus for providing detents on an electronic control handle as described above. Hutchison does not use a hydraulic pressure spike to trigger an exit from said second mode. Arstein, however, discloses an auto-return function for a bulldozer ripper comprising:

- a pressure sensor which senses a hydraulic pressure spike which indicates said implement is in a fully raised position (column 2, lines 16 – 20);
- a timer which counts down from a predetermined time value which indicates said implement is in a fully raised position (column 2, lines 23 – 27).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to make use of the position determining mechanisms of Arstein within the electronic control of Hutchison in order to provide simple and robust indicators of said implement's position and to communicate said position to said controller.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison (5,642,653) in view of Hou et al. (6,561,076). Hutchison discloses a method and apparatus for providing detents on an electronic control handle as described above. Hutchison does not disclose damping or ramp rate change. Hou, however, discloses a differential configuration of remote hydraulic valve flow rates comprising:

- a plurality of modes in which varied flow rates, i.e. ramp rates, cause varied proportional control modes (column 7, lines 8 – 30).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the variable flow rates of Hou to the electronic control of Hutchison in order to fine tune the actuation of said implements.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison (5,642,653) in view of Arstein et al. (5,685,377) as applied to claims 1 - 16 above, and further in view of Khan et al. (5,996,342). Hutchison in view of Arstein does not specifically disclose information on the use of two input devices. Khan, however, discloses a hydrostatic drive train controller comprising:

- a first and second input device which each generate signals to said controller in order to independently control hydraulic flow to actuate two implements (column 3, lines 49 – 59).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to provide said second input device of Khan to the electronic control of

Hutchison in view of Arstein in order to provide independent movement and actuation to both implements.

***Allowable Subject Matter***

Claims 19, 20, 22 – 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Triggering a switch in ramp rate via manipulation of the operator input device or via oscillation of the operator input device, in combination with the other elements recited, are not found in the prior art of record.

Claims 23 – 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 30 – 33 are allowed.

The following is an examiner's statement of reasons for allowance.

In the examiner's opinion, none of the prior art references, taken individually or collectively, teach or anticipate the following limitations found in the independent claim:



- monitoring movement of an operator input device and determining the number of, or the magnitude of, the back and forth movements;
- using said number of, or magnitude of, movements to trigger the reduction in ramp rate.

The prior art relating to hydraulic work vehicle controls contains methods to modify the damping or ramp rate via the electronic controller. Hou et al. (6,561,076) discloses a method making use of a secondary operator control by which the ramp rate is modified. Orbach et al. (6,058,342) discloses a controller that is capable of automatically modifying ramp rate in response to various vehicle and implement conditions. The use of the movements of the operator input device to change the ramp rate is not found within the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

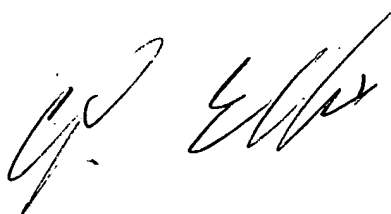
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Walters whose telephone number is (571) 272-8269. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John D. Walters  
Examiner  
Art Unit 3618

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